



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/566,460

01/30/2006

Shuichi Tasaka

10873.1829USWO

3887

53148

7590

12/23/2008

HAMRE, SCHUMANN, MUELLER & LARSON P.C.

P.O. BOX 2902-0902

MINNEAPOLIS, MN 55402

EXAMINER

BIBBINS, LATANYA

ART UNIT

PAPER NUMBER

2627

MAIL DATE

DELIVERY MODE

12/23/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/566,460	<b>Applicant(s)</b> TASAKA ET AL.	
	<b>Examiner</b> LaTanya Bibbins	<b>Art Unit</b> 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 23 is/are rejected.
- 7) ☒ Claim(s) 18-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Preliminary Amendment***

1. Receipt is acknowledged of the preliminary amendment filed on January 30, 2006. In the amendment claims 4-7, 10-15 18-23 were amended. Currently claims 1-23 are pending.

### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the recording of a user information signal on all the plurality of recording layers performed from the inner periphery to the outer periphery of the information recording medium, as recited in claim 5, must be shown or the feature canceled from the claim. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

Art Unit: 2627

and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

**4.**

**5.** Figures 17 and 18 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

**6.** The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. **Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claim 7 recites the limitation "the nth inner power calibration area," "the nth outer power calibration area" and "the nth recording layer." There is insufficient antecedent basis for this limitation in the claim.

In the interest of compact prosecution, Examiner will interpret claim 7 as "the direction of test recording performed for power calibration in the inner power calibration area and in the outer power calibration area is opposite to the direction of recording of the user information signal on the one recording layer."

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. **Claims 1, 2, 12 and 15 are rejected under 35 U.S.C.102(b) as being anticipated by Hiroki (US Patent Number 5,703,841).**

**Regarding claim 1**, Hiroki discloses an information recording medium having a recording layer including a data recordable area for recording user information signals (see the data zone of Figure 11), a lead-in area provided on the inner periphery of the data recordable area (see the Lead-In Zone of Figure 11), an inner power calibration area provided further on the inside of the lead-in area for recording test recording patterns (see the Inner Test Zone in Figure 11), and a recording management area for recording recording management information related to the inner power calibration area (see the Inner Control Zone in Figure 11), wherein an outer power calibration area is provided on the outer periphery of the final point of recording of the user information signal on the recording layer (see the Outer Test Zone in Figure 11).

**Regarding claim 2**, Hiroki discloses the information recording medium according to claim 1, wherein: the recording layer further includes a lead-out area (see the lead-out zone of Figure 11), and the outer power calibration area is provided between the data recordable area and the lead-out area (see the location of the Outer Test Zone in relation to the Data Zone and the Lead-Out Zone in Figure 11).

**Regarding claim 12**, Hiroki discloses the information recording medium according to claim 1, wherein an outer recording management area used for recording recording management information related to the outer power calibration area is provided on the outside of the data recordable area (see the Outer Control Zone in Figure 11).

**Regarding claim 15**, Hiroki discloses an information recording and reproducing device for recording desired user information signals in the data recordable area of the

Art Unit: 2627

information recording medium according to claim 1, comprising: a rotary drive unit that rotates the information medium (see the spindle motor, Figure 7 element 11), an optical pickup that performs information signal recording or information signal reproduction by irradiating the information recording medium with light (see the information recording/reproducing head, Figure 7 element 6), and a calibration control unit that performs calibration of irradiation power using the optical pickup by moving the optical pickup at least to either one of the inner and outer power calibration areas of the information recording medium (see the CPU, Figure 7 element 1 and the corresponding discussion in column 11 lines 28-35, column 12 lines 45—column 13 line 25).

### ***Claim Rejections - 35 USC § 103***

**11.** The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**12. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroki (US Patent Number 5,703,841) in view of Toshiaki et al. (US PGPub Number 2004/0076094 A1).**

**Regarding claim 3,** Hiroki discloses the information recording medium according to claim 1, as noted in the 35 U.S.C. 102(b) rejection above. Hiroki fails to specifically disclose, while Toshiaki discloses the outer power calibration area forms part of the data recordable area (paragraph [0026]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hiroki and Toshiaki. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to determine the optimum recording power for minimum and maximum recording speeds (as suggested by Toshiaki in paragraph [0026]).

**13. Claims 4, 5, 8, 9 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroki (US Patent Number 5,703,841) in view of Ito et al. (US Patent Number 7,184,377 B2).**

**Regarding claim 4,** Hiroki discloses the information recording medium according to claim 1, as noted in the 35 U.S.C. 102(b) rejection above. Hiroki fails to specifically disclose, while Ito discloses a plurality of recording layers (Figure 6 elements 51 and 52), recording of a user information signal on one recording layer out of two adjacently stacked recording layers among the plurality of recording layers is performed from the inner periphery to the outer periphery of the information recording medium (see the recording direction in the first recording layer 51 in Figure 6) and recording of a user information signal on the other recording layer of the two recording layers is performed from the outer periphery to the inner periphery of the information recording medium (see the recording direction in the second recording layer 52 in Figure 6) in the other recording layer, the outer power calibration area is provided on the outer periphery of



the starting point of recording of the user information signal (Figure 6 element 11 in the second recording layer 52).

The primary reference, Hiroki, further discloses in the one recording layer, the outer power calibration area is provided on the outer periphery of the final point of recording of the user information signal (Hiroki Figure 11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Ito into that of Hiroki and have a multilayer recording medium. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to provide an information recording medium having high recording density and a large capacity (as suggested by Ito in column 1 lines 18-20).

**Regarding claim 5**, Hiroki discloses the information recording medium according to claim 1, as noted in the 35 U.S.C. 102(b) rejection above. Hiroki fails to specifically disclose, while Ito discloses a plurality of recording layers (Figure 16 elements 61 and 62), and recording of a user information signal on all the plurality of recording layers is performed from the inner periphery to the outer periphery of the information recording medium (see the recording direction in the first and second layer of the recording medium in Figure 16 and the discussion in column 20 lines 23-29).

While Ito discloses that the outer power calibration area is provided on the inner periphery of the final point of recording of the user information signal on the second recording layer (Ito Figure 16 element 11), the primary reference, Hiroki, further

Art Unit: 2627

discloses that the outer power calibration area is provided on the outer periphery of the final point of recording of the user information signal (Hiroki Figure 11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Ito into that of Hiroki and have a multilayer recording medium. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to provide an information recording medium having high recording density and a large capacity (as suggested by Ito in column 1 lines 18-20).

**Regarding claim 8**, the combination of Hiroki and Ito disclose the information recording medium according to claim 4. Ito further discloses wherein an  $n$ th outer power calibration area and an  $(n+1)$ th outer power calibration area are provided, respectively, in an adjacently stacked  $n$ th recording layer and  $(n+1)$ th recording layer, with an  $n$ th middle area provided on the inner periphery of the  $n$ th outer power calibration area in the  $n$ th recording layer, and an  $(n+1)$ th middle area provided on the inner periphery of the  $(n+1)$ th outer power calibration area in the  $(n+1)$ th recording layer (see the middle area of Ito in Figures 6, 12 and 16).

**Regarding claim 9**, the combination of Hiroki and Ito disclose the information recording medium according to claim 8. Ito further discloses the information recording medium according to claim 8 wherein in each adjacently stacked  $n$ th recording layer and  $(n+1)$ th recording layer, the  $n$ th middle area and the  $(n+1)$ th middle area, as well as the  $n$ th power calibration area and the  $(n+1)$ th power calibration area, are arranged by shifting them, in their entirety, towards the inner periphery, such that at least a portion of

Art Unit: 2627

the  $n$ th middle area and the  $(n+1)$ th middle area, as well as the  $n$ th power calibration area and the  $(n+1)$ th power calibration area, is positioned on the inside of the outermost location that permits recording user information signals (see the middle area of Ito in Figures 6, 12 and 16).

**Regarding claim 23**, the combination of Hiroki and Ito discloses an information recording and reproducing device for recording desired user information signals in the data recordable area of the information recording medium according to claim 4, comprising: a rotary drive unit that rotates the information recording medium (see the spindle motor of Hiroki in Figure 7 element 11), an optical pickup that performs information signal recording or information signal reproduction on a recording layer by irradiating any of the recording layers among the plurality of recording layers provided in the information recording medium with light (see the information recording/reproducing head, Figure 7 element 6), and a calibration control unit that performs calibration of irradiation power using the optical pickup by moving the optical pickup at least to either one of the inner and outer power calibration areas of the information recording medium on the recording layer where one intends to perform recording or reproduction of an information signal (see the CPU, Figure 7 element 1 and the corresponding discussion in column 11 lines 28-35, column 12 lines 45—column 13 line 25).

**14. Claims 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroki (US Patent Number 5,703,841) in view of Ito et al. (US Patent Number**

**7,184,377 B2), as applied to claim 4 above, and further in view of Lee et al. (US PGPub Number 2008/0013425 A1).**

**Regarding claim 6**, the combination of Hiroki and Ito disclose the information recording medium according to claim 4. Hiroki and Ito fail to disclose, while Lee discloses wherein in an nth inner power calibration area, an (n+1)th inner power calibration area, an nth outer power calibration area, and an (n+1)th outer power calibration area provided, respectively, on an adjacently stacked nth recording layer and (n+1)th recording layer, test recording execution areas provided in the respective power calibration areas are provided such that they don't mutually overlap in the direction of stacking of the recording layers (see the location of the OPC areas in Figures 3A, 4A, 4B, 5A, 5B, 6A-6C, 7A, 7B, 8 and 9 and the discussion in the abstract and paragraph [0047]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hiroki and Ito with Lee. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to prevent the degradation of recording due to an influence of an OPC area in an information storage layer upon an OPC area in an adjacent information storage layer (as suggested by Ito in the abstract).

**15. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroki (US Patent Number 5,703,841) in view of Ito et al. (US Patent Number 7,184,377 B2), as applied to claim 4 above, and further in view of DVD+R 4.7 Gbytes Basic**

**Format Specifications version 1.2, System Description (herein Non-Patent Document 1).**

Regarding claim 7, the combination of Hiroki and Ito discloses the information recording medium according to claim 4. Hiroki and Ito, however, fail to specify the direction of test recording. Non-Patent Document 1, however, discloses that the direction of test recording performed for power calibration in the inner power calibration area and in the outer power calibration area is opposite to the direction of recording of the user information signal on the recording layer (see the discussion regarding the outer disc test zone in section 21.3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Non-Patent Document 1 into the teachings of Hiroki and Ito. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to comply with the DVD+R specifications.

**16. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroki (US Patent Number 5,703,841) in view of DVD+R 4.7 Gbytes Basic Format Specifications version 1.2, System Description (herein Non-Patent Document 1).**

Regarding claim 10, Hiroki discloses the outer power calibration area provided in a circular fashion (see the Outer Test Zone of Figure 11) but fails to specifically disclose, while Non-Patent Document 1 discloses wherein the outer power calibration area is provided at a distance of at least 0.2 mm on the outside from the outermost

Art Unit: 2627

recordable location in the data recordable area (see the location of the Outer Disc Test Zone in relation to the Data Zone in Table 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the location of the outer power calibration are taught by Non-Patent Document 1 into the information recording medium of. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to comply with the DVD+R specifications.

**17. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroki (US Patent Number 5,703,841) in view of DVD+R 4.7 Gbytes Basic Format Specifications version 1.2, System Description (herein Non-Patent Document 1).**

**Regarding claim 11**, Hiroki discloses the information recording medium according to claim 1, as noted in the 35 U.S.C. 102(b) rejection above.

Hiroki fails to disclose wherein recording management information related to the outer power calibration area also is recorded in the recording management area.

Non-Patent Document 1, however discloses the claimed invention except that it contains both an inner and outer recording management area (the Inner and Outer Disc Administration Zones). It would have been an obvious matter of design choice to allow the inner disc administration zone of Non-patent document 1 control both the inner and outer test zones since the applicant has not disclosed that doing so solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with both the inner and outer administration zones.

**18. Claims 13, 14, 16 and 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroki (US Patent Number 5,703,841) in view of Morozumi et al. (US Patent Number 2003/0185120 A1).**

**Regarding claim 13,** Hiroki discloses the information recording and reproducing device according to claim 15 as noted in the 35 U.S.C. 102(b) rejection above. Hiroki, however, fails to disclose, while Morozumi discloses wherein a test recording pattern is recorded in the outer power calibration area when the data recording speed in the data recordable area is a predetermined speed or higher (see the discussion in paragraphs [0016] and [0017]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Morozumi with that of Hiroki. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to properly define the laser power such that quality of writing data can be high as suggested by Morozumi in paragraphs [0016] and [0017]).

**Regarding claim 14,** Hiroki discloses the information recording and reproducing device according to claim 15 as noted in the 35 U.S.C. 102(b) rejection above. Hiroki, however, fails to disclose, while Morozumi discloses wherein a test recording pattern is recorded in the outer power calibration area when the data recording speed in the data recordable area exceeds the recording speed at which recording was performed in the data recordable area in the past (see the discussion in paragraphs [0016] and [0017]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Morozumi with that of Hiroki. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to properly define the laser power such that quality of writing data can be high as suggested by Morozumi in paragraphs [0016] and [0017]).

**Regarding claim 16**, Hiroki discloses the information recording and reproducing device according to claim 15 as noted in the 35 U.S.C. 102(b) rejection above. Hiroki, however, fails to disclose, while Morozumi discloses a rotation control unit that controls the speed of rotation of the information recording medium by the rotary drive unit (the servo processor, Figure 1, element 22 and the discussion in paragraph [0070]), wherein the calibration control unit acquires information on the rotational speed of the information recording medium from the rotation control unit (see the discussion in paragraph [0017]) and, depending on the acquired rotational speed information, and determines in which to perform calibration of the irradiation power using the optical pickup, whether the inner power calibration area or the outer power calibration areas (see the discussion in paragraphs [0016] and [0017]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Morozumi with that of Hiroki. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to properly define the laser power such that



Art Unit: 2627

quality of writing data can be high as suggested by Morozumi in paragraphs [0016] and [0017]).

**Regarding claim 17**, the combination of Hiroki and Morozumi disclose wherein the calibration control unit carries out irradiation power calibration using the optical pickup in the outer power calibration area when the speed represented by the rotational speed information exceeds a predetermined speed (see the discussion in paragraphs [0016] and [0017]).

***Allowable Subject Matter***

**19. Claims 18-22** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

**Regarding claim 18**, none of the references of record, alone or in combination suggest or fairly teach an information recording and reproducing device including all of the limitations of claim 15 further comprising means for **copying the newest test recording pattern from among the test recording patterns stored in the inner power calibration area to the outer power calibration area whenever a recording operation begins**.

**Regarding claim 19**, none of the references of record, alone or in combination suggest or fairly teach an information recording and reproducing device including all of

Art Unit: 2627

the limitations of claim 15 further comprising means for **copying inner recording management information kept in the inner recording management area of the information medium to the outer recording management area of the information medium when recording a user information signal.**

**Regarding claim 20**, none of the references of record, alone or in combination suggest or fairly teach an information recording and reproducing device including all of the limitations of claim 15 further comprising means for **erasing test recording patterns corresponding to the data to be erased among the test recording patterns recorded in the outer power calibration area when erasing data from the data recordable area.**

**Regarding claim 21**, none of the references of record, alone or in combination suggest or fairly teach an information recording and reproducing device including all of the limitations of claim 15 further comprising means for **erasing recording management information corresponding to the data to be erased among the recording management information kept in the outer recording management area when erasing data from the data recordable area.**

**Regarding claim 22**, none of the references of record, alone or in combination suggest or fairly teach an information recording and reproducing device including all of the limitations of claim 15 wherein: **information representing the extent of the writable area of the data recordable area is contained in the recording management area of the information recording medium, and the information recording and reproducing device further includes means for modifying the**

Art Unit: 2627

**information representing the extent of the writable area of the data recordable area so as to move the outermost periphery of the writable area on the information recording medium towards the inner periphery.**

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaTanya Bibbins whose telephone number is (571)270-1125. The examiner can normally be reached on Monday through Friday 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/566,460  
Art Unit: 2627

Page 19

/LaTanya Bibbins/  
Examiner, Art Unit 2627

/Thang V. Tran/  
Primary Examiner, Art Unit 2627